

AMENDMENTS IN THE CLAIMS:

Claims 1-65. (Canceled)

66. (New) A recording apparatus comprising:

a file generating section for receiving video data including a plurality of video unit data each representing a video and audio data related to the video data, generating a video data file by providing a plurality of video specific data to the plurality of video unit data, the plurality of video specific data for identifying the plurality of video unit data, and generating an audio data file by providing audio specific data to the audio data, the audio specific data for identifying the audio data;

a dividing section for receiving the video data file and the audio data file, dividing the video data file into a plurality of video data elements, and dividing the audio data file into a plurality of audio data elements related to the plurality of video data elements, wherein an i-th (i is an integer) video data element of the plurality of video data elements includes a predetermined number of video unit data of the plurality of video unit data;

an arranging section for arranging the i-th video data element and an i-th audio data element related to the i-th video data element among the plurality of audio data elements such that the i-th audio data element and the i-th video data element are recorded within a predetermined recording unit; and

a recording section for recording the arranged i-th video data element and the arranged i-th audio data element on an information recording medium,

wherein the file generating section further receives auxiliary data including compressed video data which has been compressed at a higher compressibility than the video data, and further generates an auxiliary data file by providing auxiliary data specific data to the auxiliary data,

the auxiliary data specific data for identifying the auxiliary data, the dividing section divides the auxiliary data file into a plurality of auxiliary data elements related to the plurality of video data elements, an i-th auxiliary data element of the plurality of auxiliary data elements is related to the i-th video data element,

the dividing section specifies a position in the video data file corresponding to a head of the i-th auxiliary data element, and the dividing section divides the video data file such that a position, which is ahead of the specified position and which is spaced from the specified position by an integer multiple the size of an ECC block unit of the information recording medium, is a head of the i-th video data element.

67. (New) A recording apparatus comprising:

a file generating section for receiving video data including a plurality of video unit data each representing a video and audio data related to the video data, generating a video data file by providing a plurality of video specific data to the plurality of video unit data, the plurality of video specific data for identifying the plurality of video unit data, and generating an audio data file by providing audio specific data to the audio data, the audio specific data for identifying the audio data;

a dividing section for receiving the video data file and the audio data file, dividing the video data file into a plurality of video data elements, and dividing the audio data file into a plurality of audio data elements related to the plurality of video data elements, wherein an i-th (i is an integer) video data element of the plurality of video data elements includes a predetermined number of video unit data of the plurality of video unit data;

an arranging section for arranging the i-th video data element and an i-th audio data element related to the i-th video data element among the plurality of audio data elements such that the i-th audio data element and the i-th video data element are recorded within a predetermined recording unit; and

a recording section for recording the arranged i-th video data element and the arranged i-th audio data element on an information recording medium,

wherein the file generating section further receives metadata related to the video data and the audio data, and further generates a metadata file by providing metadata specific data to the metadata, the metadata specific data for identifying the metadata,

the dividing section divides the metadata file into a plurality of metadata elements related to the plurality of video data elements, an i-th metadata element of the

plurality of metadata elements is related to the i -th video data element,

the dividing section specifies a position in the metadata file corresponding to a head of the i -th video data element, and the dividing section divides the metadata file such that a position, which is behind the specified position and which is spaced from the specified position by an integer multiple the size of an ECC block unit of the information recording medium, is a head of the i -th metadata element.

68. (New) A recording apparatus comprising:

a file generating section for receiving video data including a plurality of video unit data each representing a video and audio data related to the video data, generating a video data file by providing a plurality of video specific data to the plurality of video unit data, the plurality of video specific data for identifying the plurality of video unit data, and generating an audio data file by providing audio specific data to the audio data, the audio specific data for identifying the audio data;

a dividing section for receiving the video data file and the audio data file, dividing the video data file into a plurality of video data elements, and dividing the audio data file into a plurality of audio data elements related to the plurality of video data elements, wherein an i -th (i is an integer) video data element of the plurality of video data elements includes a predetermined number of video unit data of the plurality of video unit data;

an arranging section for arranging the i -th video data element and an i -th audio data element related to the i -th video data element among the plurality of audio data elements such that the i -th audio data element and the i -th video data element are recorded within a predetermined recording unit; and

a recording section for recording the arranged i -th video data element and the arranged i -th audio data element on an information recording medium

wherein the dividing section specifies a position in the audio data file corresponding to a head of the i -th video data element, and

the dividing section divides the audio data file such that a position, which is behind the specified position and which is spaced from the specified position by an

integer multiple the size of the ECC block unit of the information recording medium, is a head of the i -th audio data element.

69. (New) A recording apparatus according to any of claims 66-68, wherein, an l -th (l is an integer) video specific data for identifying the l -th video unit data of the plurality of video unit data among the plurality of video specific data is provided to the l -th video unit data, and

the file generating section provides filler data and filler data specific data to the l -th video unit data, the filler data specific data for identifying the filler data, and

a total size of the sum of the l -th video unit data, the l -th video specific data, the filler data and the filler data specific data is equal to an integer multiple the size of a sector unit of the information recording medium.

70. (New) A recording apparatus according to any of claims 66-68, wherein a header area is provided on the information recording medium, and the arranging section outputs the audio specific data to the recording section such that the audio specific data is recorded in the header area.

71. (New) A recording apparatus according to claim 66, wherein the file generating section further receives metadata related to the video data and the audio data, and further generates a metadata file by providing metadata specific data to the metadata, the metadata specific data for identifying the metadata,

the dividing section divides the metadata file into a plurality of metadata elements related to the plurality of video data elements, and

the arranging section arranges an i -th metadata element related to the i -th video data element among the plurality of metadata elements and the i -th audio data element such that they are arranged ahead of the i -th video data element within the predetermined recording unit.

72. (New) A recording apparatus according to claim 71, wherein, the arranging section arranges the i-th auxiliary data element related to the i-th video data element among the plurality of auxiliary data elements and the i-th metadata element such that they are adjacent to each other within the predetermined recording unit.

73. (New) A recording apparatus according to claim 72, wherein the i-th auxiliary data element further includes compressed audio data which has been compressed at a higher compressibility than the video unit data.

74. (New) A recording apparatus according to claim 72, wherein the arranging section arranges the i-th auxiliary data element ahead of the i-th video data element.

75. (New) A recording apparatus according to claim 72, wherein the arranging section arranges the auxiliary data element ahead of the metadata element, the audio data element and the video data element.

76. (New) A recording apparatus according to claim 67, wherein the arranging section arranges the i-th metadata element related to the i-th video data element among the plurality of metadata elements and the i-th audio data element such that they are arranged ahead of the i-th video data element within the predetermined recording unit.

77. (New) A recording apparatus according to claim 76, wherein, the file generating section further receives auxiliary data including compressed video data which has been compressed at a higher compressibility than the video data, further generates an auxiliary data file by providing auxiliary data specific data to the auxiliary data,

the auxiliary data specific data for identifying the auxiliary data, the dividing section divides the auxiliary data file into a plurality of auxiliary data elements related to the plurality of video data elements, and

the arranging section arranges an i-th auxiliary data element related to the i-th

video data element among the plurality of auxiliary data elements and the i-th metadata element such that they are adjacent to each other within the predetermined recording unit.

78. (New) A recording apparatus according to claim 77, wherein the i-th auxiliary data element further includes compressed audio data which has been compressed at a higher compressibility than the video unit data.

79. (New) A recording apparatus according to claim 77, wherein the arranging section arranges the i-th auxiliary data element ahead of the i-th video data element.

80. (New) A recording apparatus according to claim 77, wherein the arranging section arranges the auxiliary data element ahead of the metadata element, the audio data element and the video data element.

81. (New) A recording apparatus according to claim 68, wherein the file generating section further receives metadata related to the video data and the audio data, and further generates a metadata file by providing metadata specific data to the metadata, the metadata specific data for identifying the metadata,

the dividing section divides the metadata file into a plurality of metadata elements related to the plurality of video data elements, and

the arranging section arranges an i-th metadata element related to the i-th video data element among the plurality of metadata elements and the i-th audio data element such that they are arranged ahead of the i-th video data element within the predetermined recording unit.

82. (New) A recording apparatus according to claim 81, wherein, the file generating section further receives auxiliary data including compressed video data which has been compressed at a higher compressibility than the video data, further generates an auxiliary data file by providing auxiliary data specific data to the auxiliary data,

the auxiliary data specific data for identifying the auxiliary data, the dividing section divides the auxiliary data file into a plurality of auxiliary data elements related to the plurality of video data elements, and

the arranging section arranges an i-th auxiliary data element related to the i-th video data element among the plurality of auxiliary data elements and the i-th metadata element such that they are adjacent to each other within the predetermined recording unit.

83. (New) A recording apparatus according to claim 82, wherein the i-th auxiliary data element further includes compressed audio data which has been compressed at a higher compressibility than the video unit data.

84. (New) A recording apparatus according to claim 82, wherein the arranging section arranges the i-th auxiliary data element ahead of the i-th video data element.

85. (New) A recording apparatus according to claim 82, wherein the arranging section arranges the auxiliary data element ahead of the metadata element, the audio data element and the video data element.

86. (New) A recording apparatus according to any of claims 66-68, wherein when there exists a defective area on the information recording medium,
the arranging section arranges rearrangement data for forming a rearrangement area used to rearrange predetermined data depending on the defective area, as well as the i-th video data element and the i-th audio data element, such that the rearrangement data is recorded within the predetermined recording unit.

87. (New) A recording apparatus according to any of claims 66-68, wherein when there exists a defective area on the information recording medium,
the arranging section arranges shift data for forming a shift area used to shift predetermined data depending on the defective area, as well as the i-th video data

element and the i-th audio data element, such that the shift data is recorded within the predetermined recording unit.

88. (New) A recording method comprising the step of:

receiving video data including a plurality of video unit data each representing a video and audio data related to the video data, generating a video data file by providing a plurality of video specific data to the plurality of video unit data, the plurality of video specific data for identifying the plurality of video unit data, and

generating an audio data file by providing audio specific data to the audio data, the audio specific data for identifying the audio data;

receiving the video data file and the audio data file, dividing the video data file into a plurality of video data elements, and

dividing the audio data file into a plurality of audio data elements related to the plurality of video data elements, wherein an i-th (i is an integer) video data element of the plurality of video data elements includes a predetermined number of video unit data of the plurality of video unit data;

arranging the i-th video data element and an i-th audio data element related to the i-th video data element among the plurality of audio data elements such that the i-th audio data element and the i-th video data element are recorded within a predetermined recording unit; and recording the arranged i-th video data element and the arranged i-th audio data element on an information recording medium

wherein the file generating step includes a step of further receiving auxiliary data including compressed video data which has been compressed at a higher compressibility than the video data, and further generating an auxiliary data file by providing auxiliary data specific data to the auxiliary data, the auxiliary data specific data for identifying the auxiliary data,

the dividing step includes a step of dividing the auxiliary data file into a plurality of auxiliary data elements related to the plurality of video data elements, an i-th auxiliary data element of the plurality of auxiliary data elements is related to the i-th video data element,

the dividing step includes a step of specifying a position in the video data file corresponding to a head of the i-th auxiliary data element, and

the dividing step includes a step of dividing the video data file such that a position, which is ahead of the specified position and which is spaced from the specified position by an integer multiple the size of an ECC block unit of the information recording medium, is a head of the i-th video data element.

89. (New) A recording method comprising the step of:

receiving video data including a plurality of video unit data each representing a video and audio data related to the video data, generating a video data file by providing a plurality of video specific data to the plurality of video unit data, the plurality of video specific data for identifying the plurality of video unit data, and

generating an audio data file by providing audio specific data to the audio data, the audio specific data for identifying the audio data;

receiving the video data file and the audio data file, dividing the video data file into a plurality of video data elements, and

dividing the audio data file into a plurality of audio data elements related to the plurality of video data elements, wherein an i-th (i is an integer) video data element of the plurality of video data elements includes a predetermined number of video unit data of the plurality of video unit data;

arranging the i-th video data element and an i-th audio data element related to the i-th video data element among the plurality of audio data elements such that the i-th audio data element and the i-th video data element are recorded within a predetermined recording unit; and recording the arranged i-th video data element and the arranged i-th audio data element on an information recording medium

wherein the file generating step includes a step of further receiving metadata related to the video data and the audio data, and further generating a metadata file by providing metadata specific data to the metadata, the metadata specific data for identifying the metadata,

the dividing step includes a step of dividing the metadata file into a plurality of

metadata elements related to the plurality of video data elements, an i -th metadata element of the plurality of metadata elements is related to the i -th video data element,

the dividing step includes a step of specifying a position in the metadata file corresponding to a head of the i -th video data element, and

the dividing step includes a step of dividing the metadata file such that a position, which is behind the specified position and which is spaced from the specified position by an integer multiple the size of an ECC block unit of the information recording medium, is a head of the i -th metadata element.

90. (New) A recording method comprising the step of:

receiving video data including a plurality of video unit data each representing a video and audio data related to the video data, generating a video data file by providing a plurality of video specific data to the plurality of video unit data, the plurality of video specific data for identifying the plurality of video unit data, and

generating an audio data file by providing audio specific data to the audio data, the audio specific data for identifying the audio data;

receiving the video data file and the audio data file, dividing the video data file into a plurality of video data elements, and

dividing the audio data file into a plurality of audio data elements related to the plurality of video data elements, wherein an i -th (i is an integer) video data element of the plurality of video data elements includes a predetermined number of video unit data of the plurality of video unit data;

arranging the i -th video data element and an i -th audio data element related to the i -th video data element among the plurality of audio data elements such that the i -th audio data element and the i -th video data element are recorded within a predetermined recording unit; and recording the arranged i -th video data element and the arranged i -th audio data element on an information recording medium

wherein the dividing step includes a step of specifying a position in the audio data file corresponding to a head of the i -th video data element, and

the dividing step includes a step of dividing the audio data file such that a

position, which is behind the specified position and which is spaced from the specified position by an integer multiple the size of the ECC block unit of the information recording medium, is a head of the i-th audio data element.

91. (New) A recording method according to any of claims 88-90, wherein, an l-th (l is an integer) video specific data for identifying the l-th video unit data of the plurality of video unit data among the plurality of video specific data is provided to the l-th video unit data, and

the file generating step includes a step of providing filler data and filler data specific data to the l-th video unit data, the filler data specific data for identifying the filler data, and a total size of the sum of the l-th video unit data, the l-th video specific data, the filler data and the filler data specific data is equal to an integer multiple the size of a sector unit of the information recording medium.

92. (New) A recording method according to any of claims 88-90, wherein a header area is provided on the information recording medium, and the arranging step includes a step of outputting the audio specific data to the recording section such that the audio specific data is recorded in the header area.

93. (New) A recording method according to any of claims 88, wherein

the file generating step includes a step of further receiving metadata related to the video data and the audio data, and further generating a metadata file by providing metadata specific data to the metadata, the metadata specific data for identifying the metadata,

the dividing step includes a step of dividing the metadata file into a plurality of metadata elements related to the plurality of video data elements, and

the arranging step includes a step of arranging an i-th metadata element related to the i-th video data element among the plurality of metadata elements and the i-th audio data element such that they are arranged ahead of the i-th video data element within the predetermined recording unit.

94. (New) A recording method according to claim 93, wherein, the arranging step includes a step of arranging the i-th auxiliary data element related to the i-th video data element among the plurality of auxiliary data elements and the i-th metadata element such that they are adjacent to each other within the predetermined recording unit.

95. (New) A recording method according to claim 94, wherein the i-th auxiliary data element further includes compressed audio data which has been compressed at a higher compressibility than the video unit data.

96. (New) A recording method according to claim 94, wherein the arranging step includes a step of arranging the i-th auxiliary data element ahead of the i-th video data element.

97. (New) A recording method according to claim 94, wherein the arranging step includes a step of arranging the auxiliary data element ahead of the metadata element, the audio data element and the video data element.

98. (New) A recording method according to claim 89, wherein the arranging step includes a step of arranging the i-th metadata element related to the i-th video data element among the plurality of metadata elements and the i-th audio data element such that they are arranged ahead of the i-th video data element within the predetermined recording unit.

99. (New) A recording method according to claim 98, wherein, the file generating step includes a step of further receiving auxiliary data including compressed video data which has been compressed at a higher compressibility than the video data, further generating an auxiliary data file by providing auxiliary data specific data to the auxiliary data, the auxiliary data specific data for identifying the auxiliary data,
the dividing step includes a step of dividing the auxiliary data file into a plurality

of auxiliary data elements related to the plurality of video data elements, and the arranging step includes a step of arranging an i-th auxiliary data element related to the i-th video data element among the plurality of auxiliary data elements and the i-th metadata element such that they are adjacent to each other within the predetermined recording unit.

100. (New) A recording method according to claim 99, wherein the i-th auxiliary data element further includes compressed audio data which has been compressed at a higher compressibility than the video unit data.

101. (New) A recording method according to claim 99, wherein the arranging step includes a step of arranging the i-th auxiliary data element ahead of the i-th video data element.

102. (New) A recording method according to claim 99, wherein the arranging step includes a step of arranging the auxiliary data element ahead of the metadata element, the audio data element and the video data element.

103. (New) A recording method according to claim 90, wherein

the file generating step includes a step of further receiving metadata related to the video data and the audio data, and further generating a metadata file by providing metadata specific data to the metadata, the metadata specific data for identifying the metadata,

the dividing step includes a step of dividing the metadata file into a plurality of metadata elements related to the plurality of video data elements, and

the arranging step includes a step of arranging an i-th metadata element related to the i-th video data element among the plurality of metadata elements and the i-th audio data element such that they are arranged ahead of the i-th video data element within the predetermined recording unit.

104. (New) A recording method according to claim 103, wherein, the file generating step includes a step of further receiving auxiliary data including compressed video data which has been compressed at a higher compressibility than the video data, further generating an auxiliary data file by providing auxiliary data specific data to the auxiliary data, the auxiliary data specific data for identifying the auxiliary data,

the dividing step includes a step of dividing the auxiliary data file into a plurality of auxiliary data elements related to the plurality of video data elements, and the arranging step includes a step of arranging an i-th auxiliary data element related to the i-th video data element among the plurality of auxiliary data elements and the i-th metadata element such that they are adjacent to each other within the predetermined recording unit.

105. (New) A recording method according to claim 104, wherein the i-th auxiliary data element further includes compressed audio data which has been compressed at a higher compressibility than the video unit data.

106. (New) A recording method according to claim 104, wherein the arranging step includes a step of arranging the i-th auxiliary data element ahead of the i-th video data element.

107. (New) A recording method according to claim 104, wherein the arranging step includes a step of arranging the auxiliary data element ahead of the metadata element, the audio data element and the video data element.

108. (New) A recording method according to any of claims 88-90, wherein when there exists a defective area on the information recording medium, the arranging step further includes a step of arranging rearrangement data for forming a rearrangement area used to rearrange predetermined data depending on the defective area, as well as the i-th video data element and the i-th audio data element, such that the rearrangement data is recorded within the predetermined recording unit.

109. (New) A recording method according to any of claims 88-90, wherein when there exists a defective area on the information recording medium, the arranging step further includes a step of arranging shift data for forming a shift area used to shift predetermined data depending on the defective area, as well as the i-th video data element and the i-th audio data element, such that the shift data is recorded within the predetermined recording unit.

110. (New) A recording apparatus comprising:

- a file generating section for receiving a first contents data including a plurality of contents unit data each representing at least a part of first contents and a second contents data related to the first contents data, generating a first contents data file by providing a plurality of first contents specific data to the plurality of the contents unit data, the plurality of first contents specific data for identifying the plurality of contents unit data, and

- generating a second contents data file by providing second contents specific data to the second contents data, the second contents specific data for identifying the second contents data;

- a dividing section for receiving the first contents data file and the second contents data file,

- dividing the first contents data file into a plurality of first contents data elements, and

- dividing the second contents data file into a plurality of second contents data elements related to the plurality of first contents data element, wherein an i-th (i is an integer) first contents data element of the plurality of first contents data elements includes a predetermined number of contents unit data of the plurality of contents unit data;

- an arranging section for arranging the i-th first contents data element and an i-th second contents data element related to the i-th first contents data element among the plurality of the second contents data elements such that the i-th second contents data

element and the i-th first contents data element are recorded within a predetermined recording unit; and

a recording section for recording the arranged i-th first contents data element and the arranged i-th second contents data element on the information recording medium,

wherein the dividing section specifies a position in the second contents data file corresponding to a head of the i-th first contents data element, and

the dividing section divides the second contents data file such that a position, which is behind the specified position and which is spaced from the specified position by an integer multiple the size of the ECC block unit of the information recording medium, is a head of the i-th second contents element.

111. (New) A recording apparatus according to claim 110, wherein an l-th (l is an integer) first contents specific data for identifying the l-th contents unit data of the plurality of contents unit data among the plurality of first contents specific data is provided to the l-th contents unit data, the file generating section provides filler data and filler data specific data to the l-th contents unit data, the filler data specific data for identifying the filler data, and a total size of the sum of the l-th contents unit data, the l-th first contents specific data, the filler data and the filler data specific data is equal to an integer multiple the size of a sector unit of the information recording medium.

112. (New) A recording apparatus according to claim 110, wherein the first contents is one of a video and an audio.

113. (New) A recording apparatus according to claim 110, wherein the l-th first contents specific data includes first key data which identifies a type of the l-th contents unit data and first length data which indicates a length of the l-th contents unit data, and the filler data specific data includes second key data which identifies a type of the filler data and second length data which indicates a length of the filler data.

114. (New) A recording apparatus according to claim 113, wherein the first contents is one of a video and an audio.

115. (New) A recording apparatus according to claim 110, wherein a header area is provided on the information recording medium, and the arranging section outputs the second contents specific data to the recording section such that the second contents specific data is recorded in the header area.

116. (New) A recording apparatus according to claim 115, wherein the second content is one of a video and an audio.

117. (New) A recording apparatus according to claim 115, wherein the second contents specific data includes key data which identifies a type of the second contents data and length data which indicates a length of the second contents data.

118. (New) A recording apparatus according to claim 117, wherein the second contents is one of a video and an audio.

119. (New) A recording method comprising the steps of:

- receiving a first contents data including a plurality of contents unit data each representing at least a part of first contents and a second contents data related to the first contents data,

- generating a first contents data file by providing a plurality of first contents specific data to the plurality of the contents unit data, the plurality of first contents specific data for identifying the plurality of contents unit data, and

- generating a second contents data file by providing second contents specific data to the second contents data, the second contents specific data for identifying the second contents data;

- receiving the first contents data file and the second contents data file,

- dividing the first contents data file into a plurality of first contents data elements,

and dividing the second contents data file into a plurality of second contents data elements related to the plurality of first contents data element, wherein an i-th (i is an integer) first contents data element of the plurality of first contents data elements includes a predetermined number of contents unit data of the plurality of contents unit data;

arranging the i-th first contents data element and an i-th second contents data element related to the i-th first contents data element among the plurality of the second contents data elements such that the i-th second contents data element and the i-th first contents data element are recorded within a predetermined recording unit; and

recording the arranged i-th first contents data element and the arranged i-th second contents data element on the information recording medium

wherein the dividing step includes a step of specifying a position in the second contents data file corresponding to a head of the i-th first contents data element, and

the dividing step includes a step of dividing the second contents data file such that a position, which is behind the specified position and which is spaced from the specified position by an integer multiple the size of the ECC block unit of the information recording medium, is a head of the i-th second contents data element.

120. (New) A recording method according to claim 119, wherein an l-th (l is an integer) first contents specific data for identifying the l-th contents unit data of the plurality of contents unit data among the plurality of first contents specific data is provided to the l-th contents unit data, the file generating step includes a step of providing filler data and filler data specific data to the l-th contents unit data, the filler data specific data for identifying the filler data, and a total size of the sum of the l-th contents unit data, the l-th first contents specific data, the filler data and the filler data specific data is equal to an integer multiple the size of a sector unit of the information recording medium.

121. (New) A recording method according to claim 120, wherein the first contents is one of a video and an audio.

122. (New) A recording method according to claim 120, wherein the I-th first contents specific data includes first key data which identifies a type of the I-th contents unit data and first length data which indicates a length of the I-th contents unit data, and the filler data specific data includes second key data which identifies a type of the filler data and second length data which indicates a length of the filler data.

123. (New) A recording method according to claim 122, wherein the first contents is one of a video and an audio.

124. (New) A recording method according to claim 119, wherein a header area is provided on the information recording medium, and the arranging step includes a step of outputting the second contents specific data to the recording section such that the second contents specific data is recorded in the header area.

125. (New) A recording method according to claim 124, wherein the second content is one of a video and an audio.

126. (New) A recording method according to claim 124, wherein the second contents specific data includes key data which identifies a type of the second contents data and length data which indicates a length of the second contents data.

127. (New) A recording method according to claim 126, wherein the second contents is one of a video and an audio.

128. (New) An information recording medium comprising:

- a plurality of video data elements obtained by dividing a video data file including a plurality of video unit data, each of the plurality of video unit data representing a video; and

- a plurality of auxiliary data elements, each of the plurality of auxiliary data

elements including compressed video data which has been compressed at a higher compressibility than the plurality of video unit data, the plurality of auxiliary data elements being related to the plurality of video data elements,

wherein an i-th (i is an integer) video data element of the plurality of video data elements is related to an i-th auxiliary data element of the plurality of auxiliary data elements, and a position in the video data file, which is ahead of a predetermined position corresponding to a head of the i-th auxiliary data element and which is spaced from the predetermined position by an integer multiple the size of an ECC block unit of the information recording medium, is a head of the i-th video data element.

129. (New) An information recording medium comprising:

a plurality of video data elements including video data; and

a plurality of metadata elements obtained by dividing a metadata file including metadata related to the video data; wherein an i-th (i is an integer) video data element of the plurality of video data elements is related to an i-th metadata element of the plurality of metadata elements, and a position in the metadata file, which is behind a predetermined position corresponding to a head of the i-th video data element and which is spaced from the predetermined position by an integer multiple the size of an ECC block unit of the information recording medium, is a head of the i-th metadata element.

130. (New) An information recording medium comprising:

a plurality of video data elements including video data; and

a plurality of audio data elements obtained by dividing an audio data file including audio data related to the video data, wherein an i-th (i is an integer) video data element of the plurality of video data elements is related to an i-th audio data element of the plurality of audio data elements, a position in the audio data file, which is behind a predetermined position corresponding to a head of the i-th video data element and which is spaced from the predetermined position by an integer multiple the size of an ECC block unit of the information recording medium, is a head of the i-th audio data

element.

131. (New) An information recording medium according to any of claims 128-130 wherein a video data element includes video unit data representing a video the information recording medium further comprises:

filler data provided to the video unit data; and filler data specific data for identifying the filler data, wherein a total size of the sum of the video unit data, the video specific data, the filler data and the filler data specific data is equal to an integer multiple the size of a sector unit of the information recording medium.

132. (New) An information recording medium according to any of claims 128-130 wherein a header area is provided,

wherein audio specific data for identifying the audio data is recorded in the header area.

133. (New) An information recording medium according to any of claims 128-130 wherein

a metadata element related to the video data element and the audio data element related to the video data element are arranged ahead of a video data element including video unit data representing a video within a predetermined recording unit.

134. (New) An information recording medium according to claim 133, wherein the information recording medium further includes an auxiliary data element including compressed video data which has been compressed at a higher compressibility than the video unit data, the auxiliary data element being related to the video data element, and the metadata element and the auxiliary data element are arranged such that they are adjacent to each other within the predetermined recording unit.

135. (New) An information recording medium according to claim 134, wherein the auxiliary data element further includes compressed audio data which has been

compressed at a higher compressibility than the video unit data.

136. (New) An information recording medium according to claim 134, wherein the auxiliary data element is arranged ahead of the video data element.

137. (New) An information recording medium according to claim 134, wherein the auxiliary data element is arranged ahead of the metadata element, the audio data element and the video data element.

138. (New) An information recording medium according to any of claims 128-130 wherein the information recording medium further comprises a rearrangement area, when there exists a defective area on the information recording medium, the rearrangement area is used to rearrange predetermined data depending on the defective area.

139. (New) An information recording medium according to any of claims 128-130 wherein the information recording medium further comprises a shift area, when there exists a defective area on the information recording medium, the shift area is used to shift predetermined data depending on the defective area.

140. (New) An information recording medium according to claim 139, wherein the predetermined data is the video data element.

141. (New) An information recording medium according to any of claims 128-130 comprising:

contents unit data representing at least a part of contents;

contents specific data for identifying the contents unit data;

filler data provided to the contents unit data; and filler data specific data for identifying the filler data, wherein a total size of the sum of the contents unit data, the contents specific data, the filler data and the filler data specific data is equal to an

integer multiple the size of a sector unit of the information recording medium.

142. (New) An information recording medium according to claim 141, wherein the contents is one of a video and an audio.

143. (New) An information recording medium according to claim 141, wherein the contents specific data includes first key data which identifies a type of the contents unit data and first length data which indicates a length of the contents unit data, and the filler data specific data includes second key data which identifies a type of the filler data and second length data which indicates a length of the filler data.

144. (New) An information recording medium according to claim 143, wherein the contents is one of a video and an audio.

145. (New) An information recording medium according to any of claims 128-130 wherein a header area is provided, further comprising:
contents data representing at least a part of contents; and
contents specific data for identifying the contents data, wherein the contents specific data is recorded in the header area.

146. (New) An information recording medium according to claim 145, wherein the contents is one of a video and an audio.

147. (New) An information recording medium according to claim 145, wherein the contents specific data includes key data which identifies a type of the contents data and length data which indicates a length of the contents data.

148. (New) An information recording medium according to claim 147, wherein the contents is one of a video and an audio.